

FIG. 1A

FIG. 1A-1
FIG. 1A-2
FIG. 1A-3

SEQ ID NO: 1	MtubZ94752	<u>mlrlvvgallv</u> <u>lafaggyavaack</u> <u>vtltvdgtamrvttmksrvidive</u>	50
	MtubZ94752	engfsvddrddlypaagvqvhdadtivlrrsrplqisldghda kgvwtta	100
	MtubZ94752	stvdealaglamtdtapaaasrasrvplsgmalpvvsaktvqIndggivr	150
	MtubZ94752	tvhlpapnvagllsaagvpllqsdhvvpaatapivegmqiqvtrnrirkv	200
SEQ ID NO: 2	MtubMTV008	<u>mpv</u> <u>gw</u> <u>lwr</u> <u>artakgttlknarttli</u> <u>aaiaagt</u>	32
SEQ ID NO: 3	Mlep104666	<u>msesy</u> <u>rkl</u>	8
SEQ ID NO: 4	MtubMTV043	<u>msg</u> <u>rh</u> <u>r</u> <u>kpt</u>	9
	MtubZ94752	terlplppnarrvedpemmsrevvedpgvpgtqdvtfavaevngvetgr	250
SEQ ID NO: 36	MlutZ96935	<u>mtl</u> <u>fts</u> <u>at</u>	9
SEQ ID NO: 5	MlepL01095	<u>mpgem</u> <u>ld</u> <u>vr</u> <u>k</u> <u>lc</u>	12
SEQ ID NO: 6	MtubU38939	<u>m</u> <u>h</u> <u>p</u> <u>l</u> <u>p</u> <u>a</u> <u>d</u> <u>h</u> <u>g</u> <u>r</u> <u>s</u> <u>r</u> <u>c</u> <u>n</u> <u>r</u> <u>h</u> <u>p</u> <u>i</u> <u>s</u> <u>p</u> <u>l</u> <u>s</u> <u>i</u> <u>g</u> <u>n</u> <u>i</u> <u>s</u> <u>a</u> <u>t</u> <u>s</u> <u>g</u> <u>d</u> <u>m</u> <u>s</u> <u>s</u> <u>n</u> <u>t</u>	38
SEQ ID NO: 7	MtubZ81368	<u>mt</u> <u>p</u> <u>g</u> <u>l</u> <u>t</u> <u>t</u> <u>a</u> <u>g</u> <u>a</u> <u>g</u> <u>r</u> <u>p</u> <u>r</u> <u>d</u> <u>r</u> <u>c</u> <u>a</u>	19
	MtubMTV008	<u>lvttspag</u> <u>ianaddagldpnaaagpdav</u> <u>gfdpnlppapdaapvdtppape</u>	82

FIG. 1A-1

SEQ ID NO: 8	Scoeli6C12S	-----irtaavtlvaatalqatgeavaapsaplrtdwdalaacessgnwqan	25
	mllep104666	ttssliivakittftgamldqslalagqaspatdsewdqvarcesgcnwsin	58
	mtubMTV043	tsnvsvakiaftgavlqgggiamaaqaataatdgenwqvarcesgcnwsin	59
	mtubZ94752	lpvanvvvtpaheavrvgtkpgtevpvpidgsiwdalagceaggnwain	300
	mlutZ96935	rsrratasivagmtlagaaaavgfsapagaatvdtwdrllaecesengtwdin	59
	mllepL01095	klfvksavvsqivtasmslststqmanavprepnwddavaocesggnwran	62
	mtubU38939	riakpliksamaaqlvtasmslststavahagpspnwddavaocesggnwaan	88
	mtubZ81368	rivctvfietavvatmfvallqlstisskaddidwdalaoecesggnwaan	69
	mtubMTV008	dagfdpnlppplapdfllspaeappvpvaysvnwddalaoecesgcnwsin	132
		.* ** *	
	Scoeli6C12S	TGNGVYGGLOFARSSWIAAGGLKYAPRADLATRGEQIYAERLARLQGMS	75
	mllep104666	TGNGVYGGLOFQSQTWASHGCGEYAPSAQLATREQQIYAERVLATQSG	108
	mtubMTV043	TGNGVYGGLOFTQSTWAAHGGGEFAPSAQLASREQQIYAGERVLATQGRG	109
	mtubZ94752	TGNGVYGGVQFDQGTWEANGGLRYAPRADLATREEQIYAEVTRLRQGWG	350
	mlutZ96935	TGNGFYGGVQFTLSSWQAVGEG-----YPHQASKAEQIKRAEILQDLQGWG	106
	mllepL01095	TGNGFYGGLOFKPTIHARYGCVG-----NPAGASREQQITVANRVLADQGLD	109
	mtubU38939	TGNGKYGGLOFKPATWAAFGGVG-----NPAAASREQQIYAVANKVLAEQGLD	135
	mtubZ81368	TGNGLYGGLOQISQATWDSNGGVG-----SPAASPPQQIEVADNIMKTQCPG	116
	mtubMTV008	TGNGVYGGLOFTAGTWRANGSG-----SAANASREEQIRVAENVLRSGQIR	179
		****,* *****,*.*.*.***** **	

FIG. 1A-2

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Scoel16C12\$	AM	78
Mlep104666	ANFACGHGLSGPSLQEVLPAG--MGAPW----	152
MtubMTV043	ANPVCGRGLSNATPREVLPA SaANDAP1daaaVNGEPAPLA-PPPADPAP	158
MtubZ94752	ANPVCaara gar	362
MlutZ96935	ANPLCSQKLgltqadadagdvdateaapvavertatvqrgsaadeaaag	156
MlepL01095	ANPKCGAASDLPIITLWSHPAQGVKQIINDIImgdtlaaialngl	155
MtubU38939	ANPTCGAASGLPIALWSKPAQGIKQIINEIiwagigasipr	176
MtubZ81368	ANPKSSscsqgdaplgs1th1tflaetggcgsrdd	154
MtubMTV008	ANPVCGr rg	188
	*** *	
Mlep104666	pqqpadnf	174
MtubMTV043	pvelaandlpaplgeplpaapadpappadlapPAPADVAPPvelavndlp	208
MlutZ96935	aaaaeqavvaeaetivvks gds1wtlaneyeveggwtalyeankgavsd a	206
MtubMTV043	aplgeplpaapadpappadlapPAPadlappapadlappadlappvel	258
MlutZ96935	aviyvggelvlpqa	220
MtubMTV043	avndlpaplgeplpaapaelappadlapasadlappapadlappapaela	308
MtubMTV043	ppapadlappaavneqtapgdqpatapggpvglatdlelpepdpqpadap	358
MtubMTV043	ppgdivtea paetpqvsnia ytkklwqairaqdv cgnaldslagpyvig-	407

FIG. 1A-3

FIG. 1B

FIG. 1B-1
FIG. 1B-2

SEQ ID NO: 9	A	YabBsubt	mgeregrvdslldtlynlseekeaffitqmkklfsvklSKSVILVAACLLAGSGAAYAHELTKQSVSVSINGKXKHIR	82
SEQ ID NO: 1	A	MtubZ94752	-----HLRLVVGALLVLAFAAG-YAVAACKTVTLTVDGTMR---VF	39
SEQ ID NO: 10	A	YochBsubt	-----miktimsfvav	11
	A	YabBsubt	THANTVGDLLLETLDIKTRDEDKITPAKQKITADMDVVVEAAKPVKLTING--EEKLWSTAKTWGALLDEQDQDVVKEQDQID	163
	A	MtubZ94752	TMKSRVIDIVEENGFSVDDRDLYPACGVQVHDADTIVLRRSRPLQISLDGHDAKQVWTRASTVDEALAGLAHDTAPAAAS	121
SEQ ID NO: 11	A	Caceto506	-----KR?AVILMVAVITTISSMKKNITVNI DG--XTSKITVKSNEGSLSKNNILVGPCKIQ	59

FIG. 1B-1

FIG. 1B-2

B	yochssubt	CAIKGNKIDVTVPEKSSAYRPNQKTVYKIKILN	208
B	yabessubt	SAIKGNKIDVTFPPSKSDASNGVKTFVYKVLN	430
B	caceto506	CAIKGNRLDFTTSERECYDNGAKNVYVYILK	318
B	cpertirng	CAIKGNKVLVFTFTEAEASNGVGRHLDVYILN	81
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SEQ ID NO: 13	RPF	TIVKSGDSLWTLANE--YEVEGGWTALYEANKGAVS-----DAAVIYVGQELVLPQA
SEQ ID NO: 14	g149657	TIKVKSGDSLWKLRSQ-YDIT--ISALKSENKL-----KSTVLYVGQSLKVPES
SEQ ID NO: 15	g2226145	TIKVKSGDSLWKLAAQT-YNTS---VAALTSANIL-----STTVLSIGQTLTIP---
SEQ ID NO: 16	g2226145	TYTVKSGDSLWVIAQK-FNVT--AQQIREKNL-----KTDVLQVGQKLVI----
SEQ ID NO: 17	g2226145	KYTVKSGDSLWKIANN-INLT--VQQIRNINNL-----KSDVLYVGQVLKL-----
SEQ ID NO: 18	g266725	TYTVKSGDTIWALSSK-YGTS---VQNIMSWNNL-----SSSSIYVGQVLAVKQ--
SEQ ID NO: 19	g80581	THAVKSGDTIWALSVK-YGVS---VQDIMSNNL-----SSSSIYVGQKLAIKQ--
SEQ ID NO: 20	g2707292	SVKVKSGDTIWALSVK-YKTS---IAQLKSWNHL-----SSDTIYIGQNLIVSQS
SEQ ID NO: 21	g755216	TYTVKSGDTLNGISQR-YGIS---VAQIQSANNL-----KSTIYIGQKLLL----
SEQ ID NO: 22	g1722873	TYTVKKGDTLWDIAGRFYGNSTQWRKIWNANKTAMIKRSKRNIROPGHWIFPGQKLKIPQ--
SEQ ID NO: 23	g1176755	TYTVKKGDTLMDLAGKFYGDSTKWRKIWKVKKKAMIKRSKRNIROPGHWIFPGQKLKIPQ--
		° *** ** ' ' * ' * *

FIG. 1C

FIG. 1D

FIG. 1D-1
FIG. 1D-2

SEQ ID NO: 4 1 msgxhkrkpttsnvsvakiaftgavl9gggiamaaqataatdgewdqvarcesgggnwsintgngylgg
lqftqstwaahgggefapsaglasreqqiavgervlatqgrgawpvcgrglsnatprevlpasaamd
apldaaavngepaplapppadp 156

157 appvelaandlpaplgelpaapadpappadlappapadv 196
197 appvelavndlpaplgelpaapadpappadlappapadlappapadl 252
253 appvelavndlpaplgelpaapaelappadlap-asadlappapadlappapaelappapadlappa
320 -----avne 323

324 qtapgdqpatapggpglatdlelpepdpqpadapppgdvteapaetpgvsniaaytkklwqaira
389 qdvcgndaldslagpyvig* 407

Motif	sequence
A	157 appvelaandl 167 SEQ ID NO: 25
B'	168 paplgelpaapad 181 SEQ ID NO: 28
C	182 pappadl 188 SEQ ID NO: 29
D	189 appapadv 196 SEQ ID NO: 31

FIG. 1D-1

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A	197 appvelavndl	207	SEQ	ID NO: 26
B'	208 paplgeplpaapad	221	SEQ	ID NO: 63
C	222 pappadl	228	SEQ	ID NO: 29
D	229 appapadl	236	SEQ	ID NO: 30
D	237 appapadl	244	SEQ	ID NO: 30
D	245 appapadl	252	SEQ	ID NO: 30
A	253 appvelavndl	263	SEQ	ID NO: 26
B	264 paplgeplpaapael	278	SEQ	ID NO: 27
'C	279 appadl	284	SEQ	ID NO: 55
D*	285 apasadl	291	SEQ	ID NO: 56
D	292 appapadl	299	SEQ	ID NO: 30
D	300 appapael	307	SEQ	ID NO: 57
D	308 appapadl	315	SEQ	ID NO: 30
D'	316 appa	319	SEQ	ID NO: 58
'A'	320 avne	323	SEQ	ID NO: 59

A = appvela[av]ndl SEQ. ID NO: 62

B = paplgeplpaapa[de]l SEQ. ID NO: 60

C = pappadl SEQ. ID NO: 29

D = appapa[de][lv] SEQ. ID NO: 61

REPLACEMENT SHEET

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SEQ ID NO:34 Lmonocytoγ.. mnmkkatiaa[ta]giav[ta]faap[ti]asastv[ve]agdtlw[gi]aqskgttvd[ai]kkanl[tt]dkivpggkigvn 72
SEQ ID NO:36 MlutFactor m[ti]lft[ts]atrs[rr]atasivagmt[la]gaav[gs]apaqaat-----vdtwdr[la]e[ce]sngtwdintgn 62

Lmonocytoγ.. nevaa[ek]te[ks]v[sat]wlnvrtgagv[dn]siitsikggktvtv[et]tesngwnhkityndgktgfvngkyltdka 144
MlutFactor gfyggv[gt]ftlsswgavgg[eg]yphq---askaeqik[ra]eilqdlqgwgaplcsqklgtqadadag----- 125

Lmonocytoγ.. vstpvpaptgevk[et]ttt[qa]apvaetk[te]vk[qt]t[qa]ttppapkv[ae]tketpvi[dn]natthavks[gd]tiiv[ad]sv 216
MlutFactor -----[dv]dateaapva[er]tatv[or]q[s]adea[ae]qaaa[ae]qavva[et]iivks[gd]sliv[td]an 184

Lmonocytoγ.. KYGVsvqdim[wn]n1-----SSSSiYVGQKDAIKQ[ta]ntatpkaevkteapaaekqaapv[ken]tntntatt 283
MlutFactor EYEV[eg]gtalyeankgav[ds]DAAVIYVGQEDVLPQA----- 220

Lmonocytoγ.. ekketatqqqtapkapteaakpapapstntnanktntntntntntpskntntnsntntntnsntnanqgss 355
MlutFactor ----- 220

Lmonocytoγ.. nnnsnssasaiiaeqkhl[kay]swgngpttfdcs[gy]tkyv[fak]agislprtsgaqyasttrisesqakpg 427
MlutFactor ----- 220

Lmonocytoγ.. dlvfddyggishvgiyvngngqminaqdnhg[ky]dni[h]sgwgkylvgfgrv 478
MlutFactor ----- 220
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FIG. 1E

FIG. 2A

FIG. 2A-1
FIG. 2A-2

```
SEQ ID NO: 35 1 accaaggagaaggacgacccccgggtgtgcctcggccgcgatcagcgaggactcgccatgg 60
61 acaccatgactctcttcaccacttcggccaccgctcccgccgtgccaccgctcgatcg 120
      M T L F T T S A T R S R R A T A S I V
      SEQ ID NO: 37 G
121 tcgcgggcataccctcgcggcgccgcgcgcgtgggtttctccgccccgcccaggcgg 180
      A G M T L A G A A A V G F S A P A Q A A
      SEQ ID NO: 38 A

      oligo A1>>
      csacsgtsgacacstgggaccgscstsgcsgag
181 ccaccgtggacacctgggaccgcctcgcgcgagtgcgagttccaacggcacctgggacatca 240
      T V D T W D R L A E C E S N G T W D I N
      T V D T W D R L A E E X S N G T X D

      <<< oligo G2      SEQ ID NO: 40 oligo G1>>>
      gttgcggaagatgcggcc      agttcacccctgtcctcctg
241 acaccggcaacggcttctacggcgcgcggtgcagttcacccctgtcctcctggcaggccgtcg 300
      T G N G F Y G G V Q F T L S S W Q A V G
      SEQ ID NO: 42 G
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FIG. 2A-1

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SEQ ID NO: 41          <<< Oligo A2
                        ccictycciatrggigtgrgtcgc
301 gcggcgaaaggctaccgcaccagcctcgaaggccgagcagatcaagcgcgcgagatcc 360
    G E G Y P H Q A S K A E Q I K R A E I L
    G E G Y P H Q A S K

361 tccaggacctgcagggtgggctggcgctgtgctgcagaagctgggctgaccc 420
    Q D L Q G W G A W P L C S Q K L G L T Q

421 aggtgacgcggacgcggtgacgtggacgccaccgagccgcccgctgccgtggagc 480
    A D A D A G D V D A T E A A P V A V E R

481 gcacggccacctgcagcgccagtcgcccgcgagcaggtgccgcgagcagcagcgcctg 540
    T A T V Q R Q S A A D E A A E Q A A

541 ccgcgagcagcgcgtcgtccgagcgcgagaccatcgtcgtcaagtcgcgtgactccc 600
    A E Q A V V A E A E T I V V K S G D S L

601 tctggacgctgcccaacgagtagcaggtggaggtggctggaccgccctctacgagcca 660
    W T L A N E Y E V E G G W T A L Y E A N

661 acaaggcgccgtctccgacgcgcgctgatctacgtcggccaggagctcgtcctgcgc 720
    K G A V S D A A V I Y V G Q E L V L P Q

721 aggcctgagacgcctgacccgccccccgacgggtacc 758
    A *

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SEQ ID NO: 43 1  ATVDTWDLA ECESNGTWDI NTGNFYGGV QFTLSSWQAV GGEYPHQAS KAEQIKRAEI 60
61  LODLQGNQAW PLCSOKLGLT QADADAGDVD ATEAAPVAVE RTATVQRQSA ADEAAAEQAA 120
121 AREQAVVAEA ETIVVKSGDS LWTLANEYEV EGGWTALYEA NKGAVSDAAV IYVGQELVLP QA 182

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FIG. 2A-2

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SEQ ID NO:44 ggatccgcaccgcgcgcgtaccctggtcgcgcgcgcgcactcggggcgaccggcgaag 60
SEQ ID NO:45 I R T A A V T L V A A T A L G A T G E A
cggtggccgcgcctcggcgccctcgcgcaccgcgcactgggacgcgccatcgcgcgtgcgagt 120
V A A P S A P L R T D W D A I A A C E S
ccagcggaactggcaggcgaacaccggcaacggctactacggcggcctgcagttcgcac 180
S G N W Q A N T G N G Y Y G G L Q F A R
ggtcagctggatcgccgcgcgcgcctcaagtaagcccgcgcggaacctgcacccc 240
S S W I A A G G L K Y A P R A D L A T R
gcggcgagcagatcgccgtggcggaacgcctcgcccgctctgcaggggatgtccgcctgg 299
G E Q I A V A E R L A R L Q G M S A W

FIG. 2B

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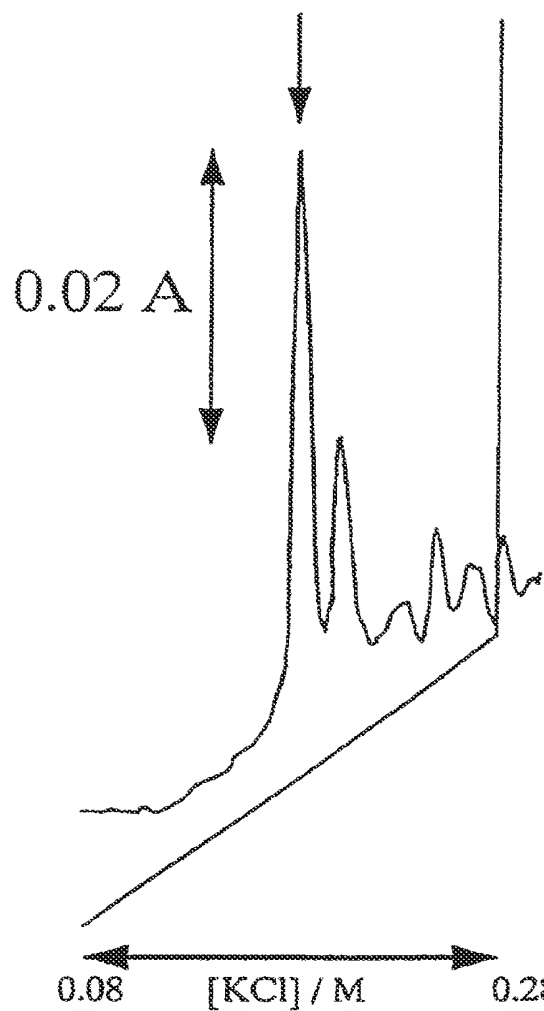


FIG. 3A

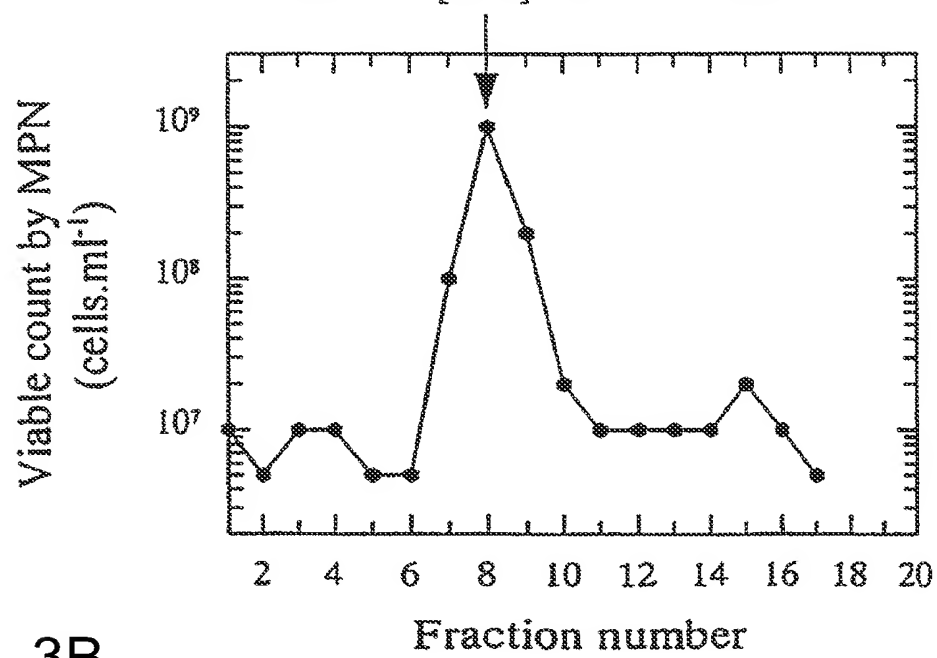


FIG. 3B

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FIG. 3C

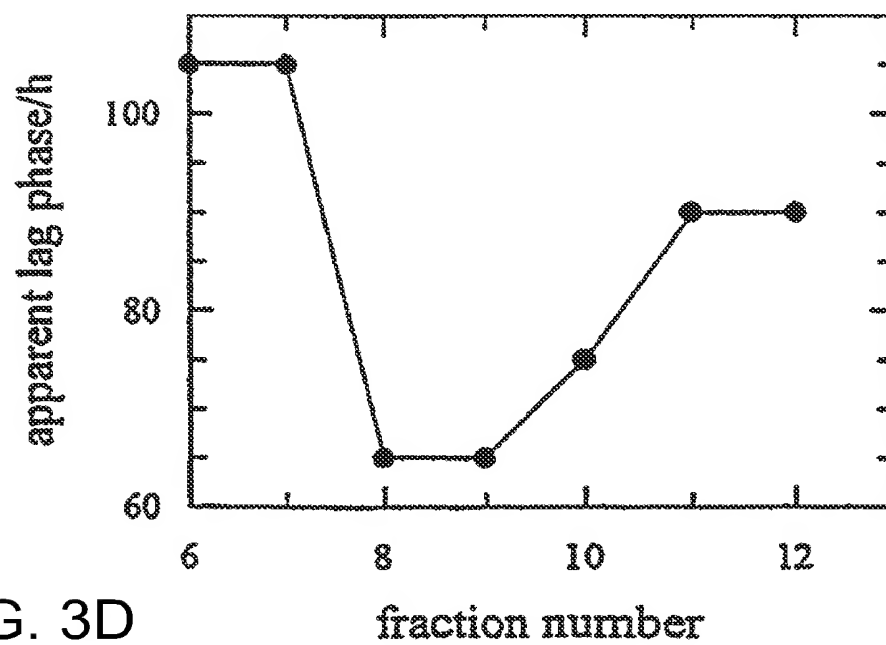
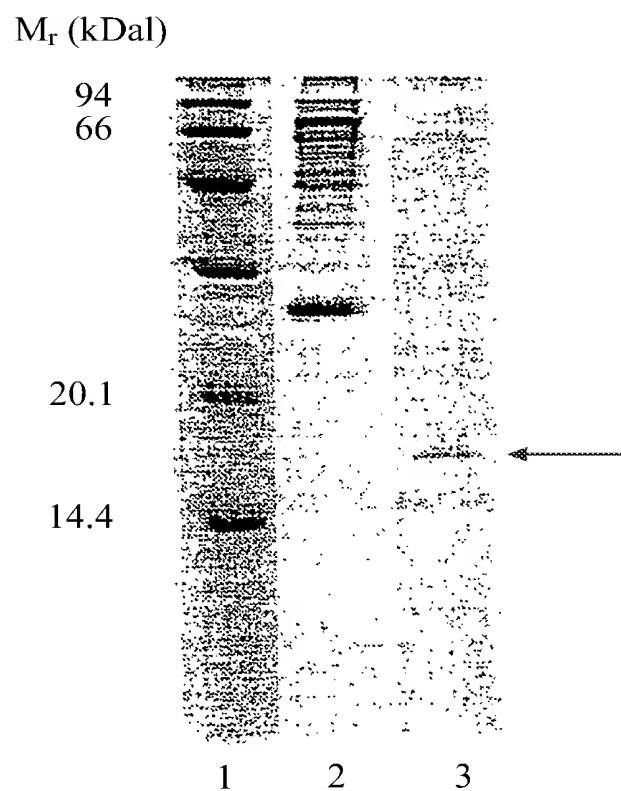


FIG. 3D

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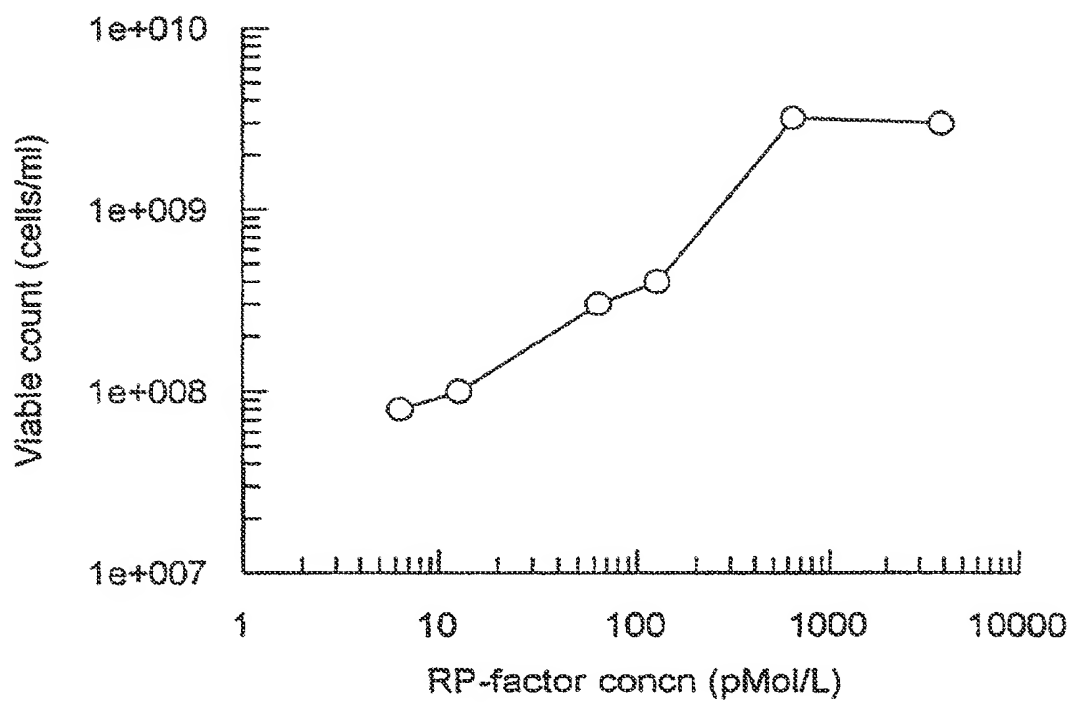


FIG. 4A

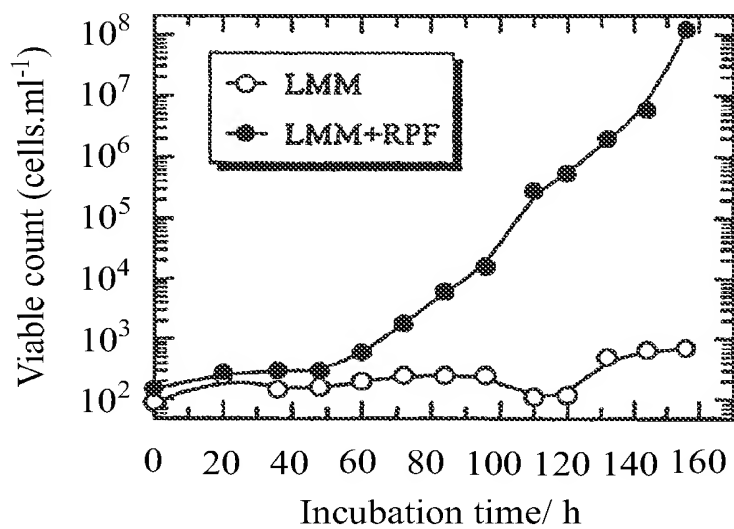


FIG. 4B

REPLACEMENT SHEET

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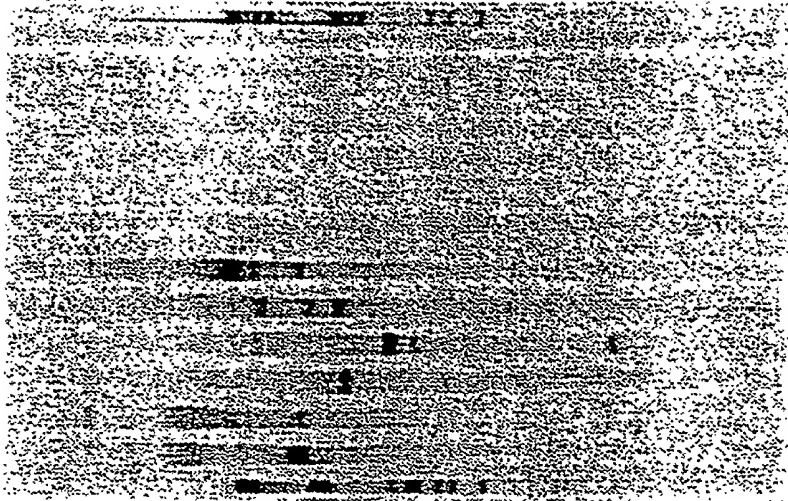


FIG. 5C

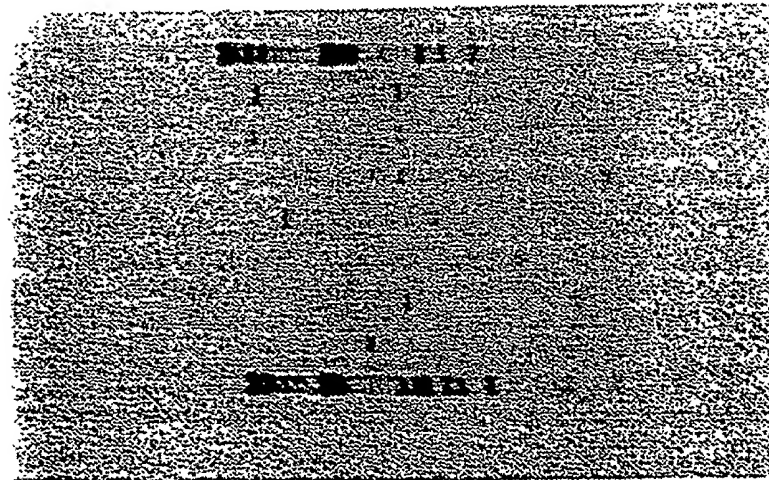


FIG. 5B

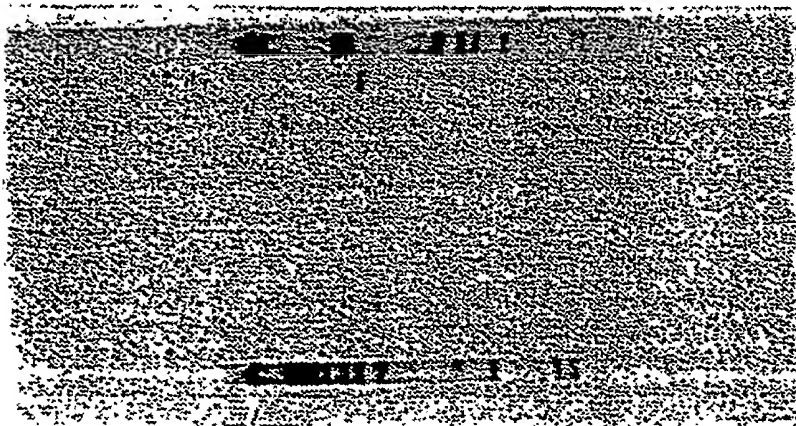


FIG. 5A

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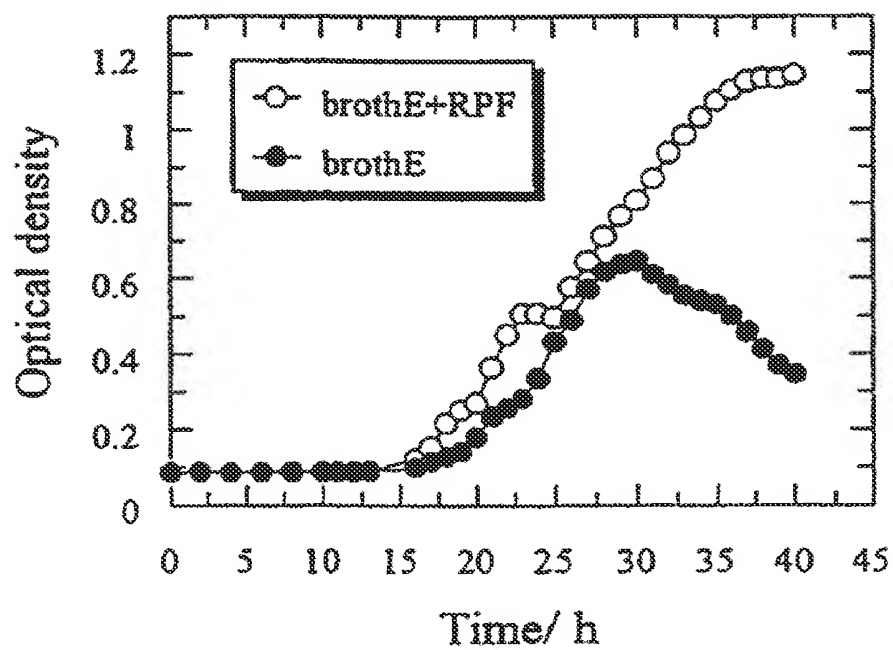


FIG. 6A

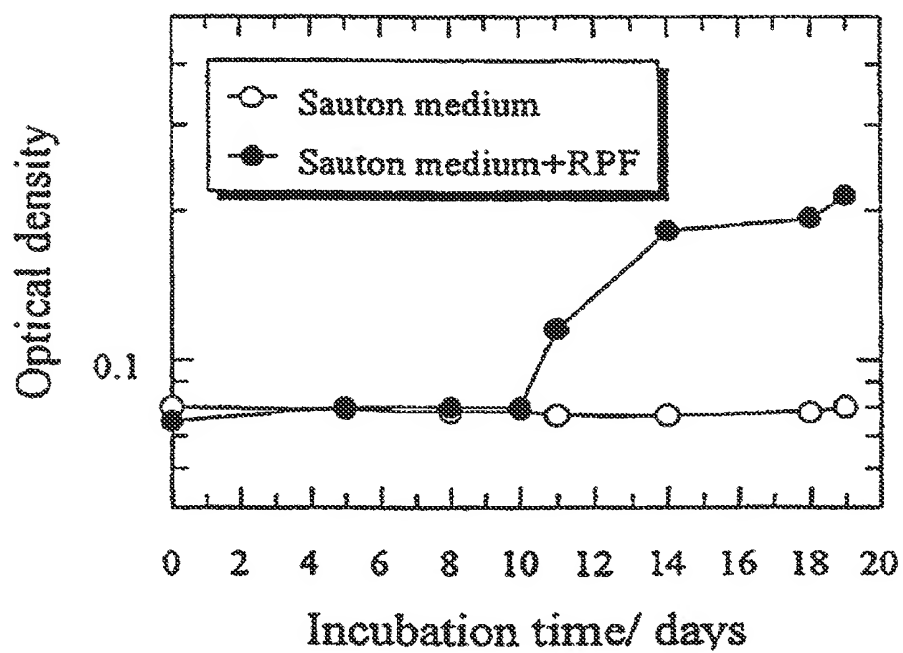


FIG. 6B

REPLACEMENT SHEET

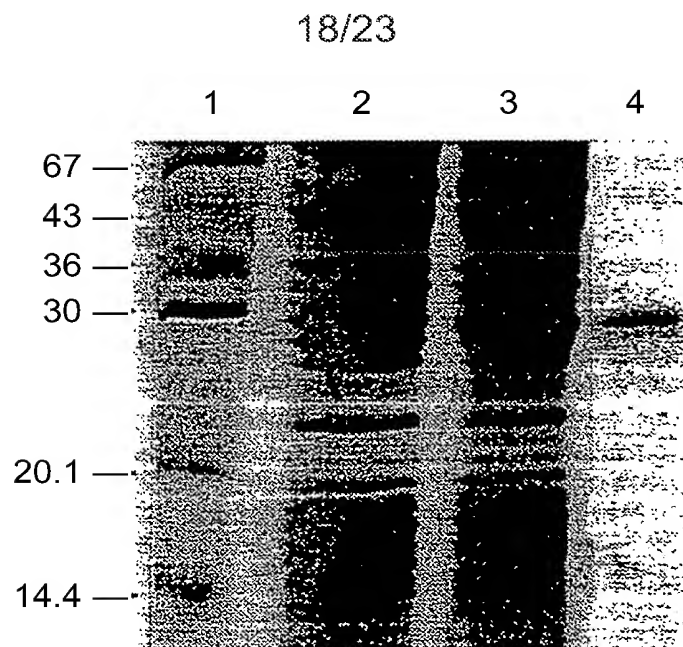


FIG. 7A

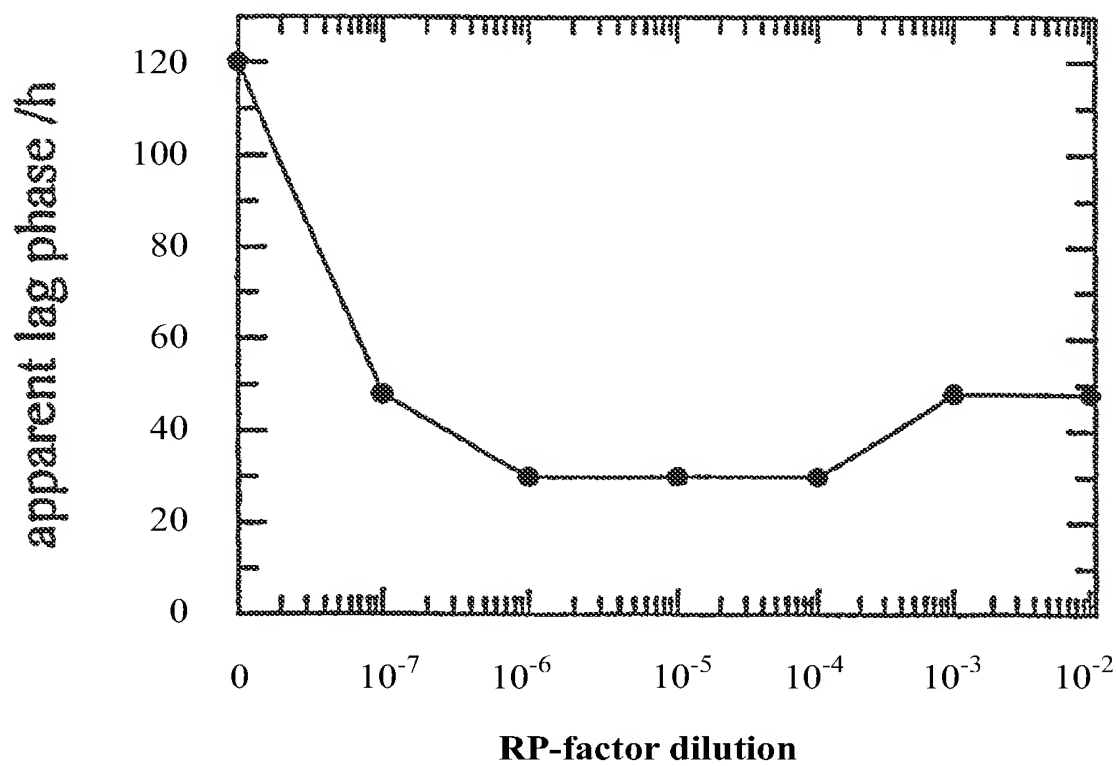


FIG. 7B

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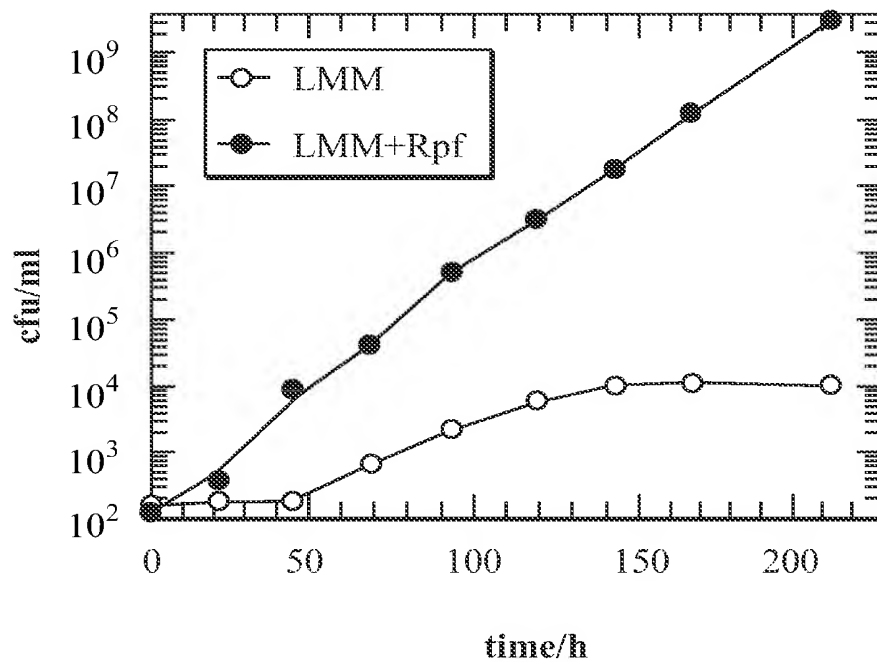


FIG. 7C

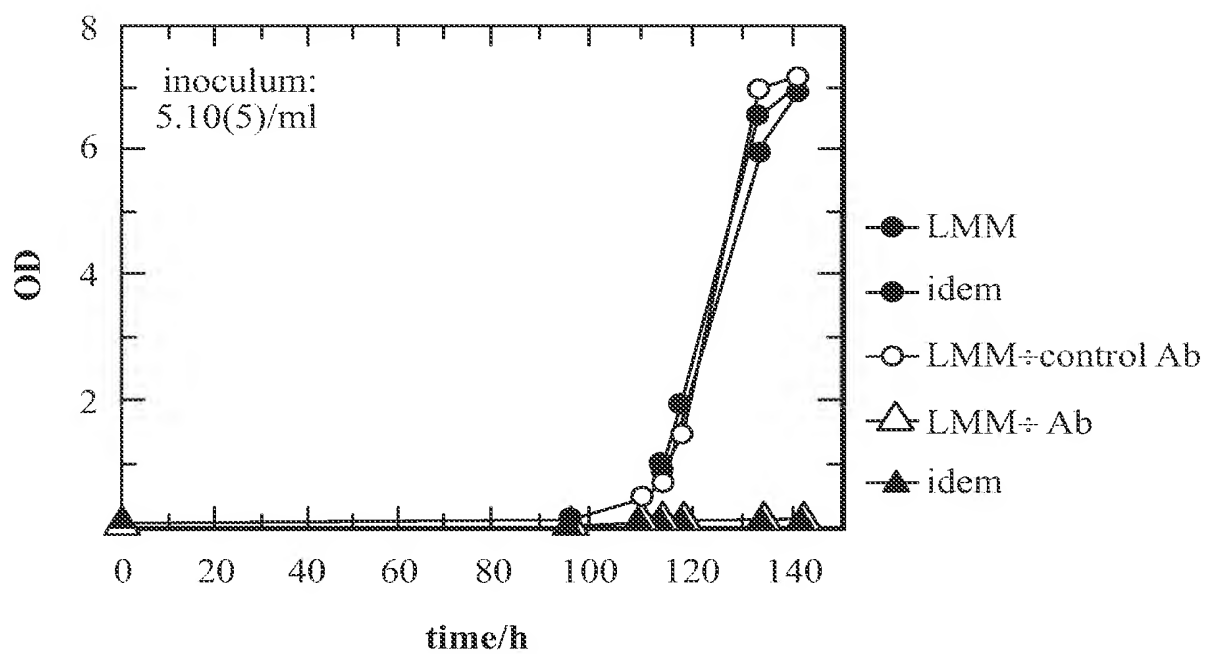


FIG. 8A

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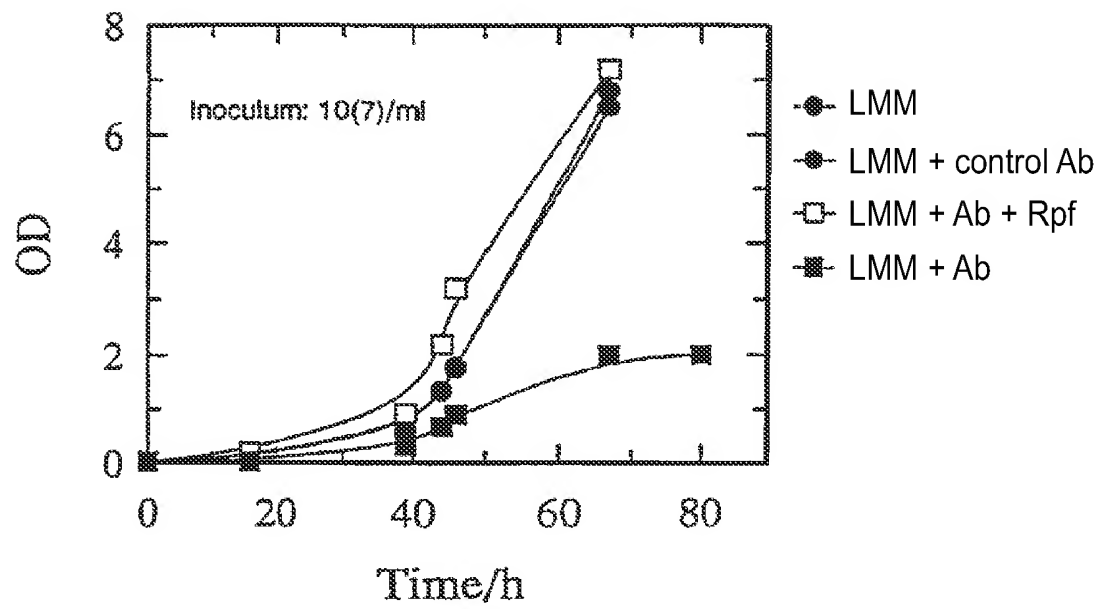


FIG. 8B

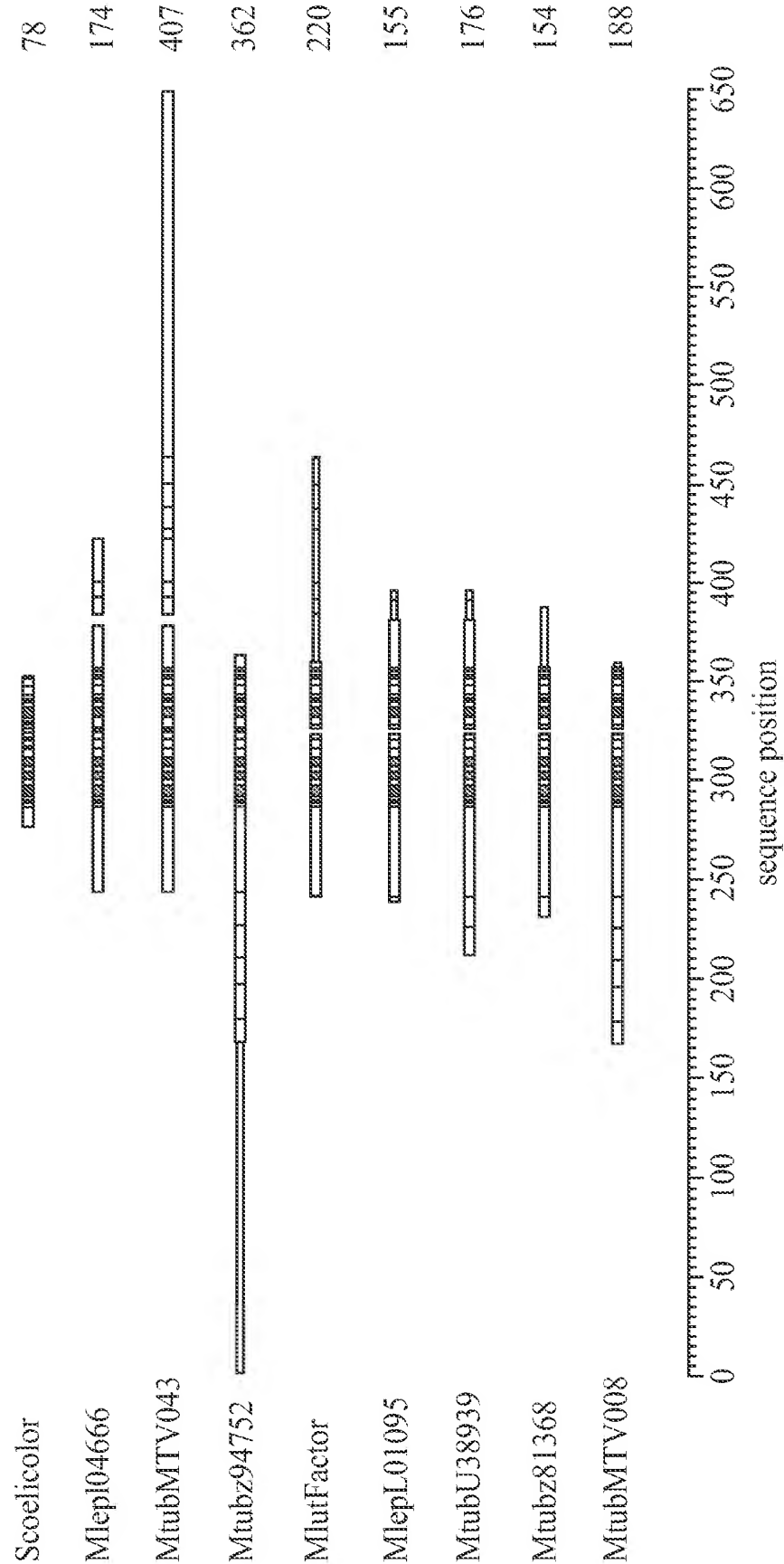


FIG. 9A

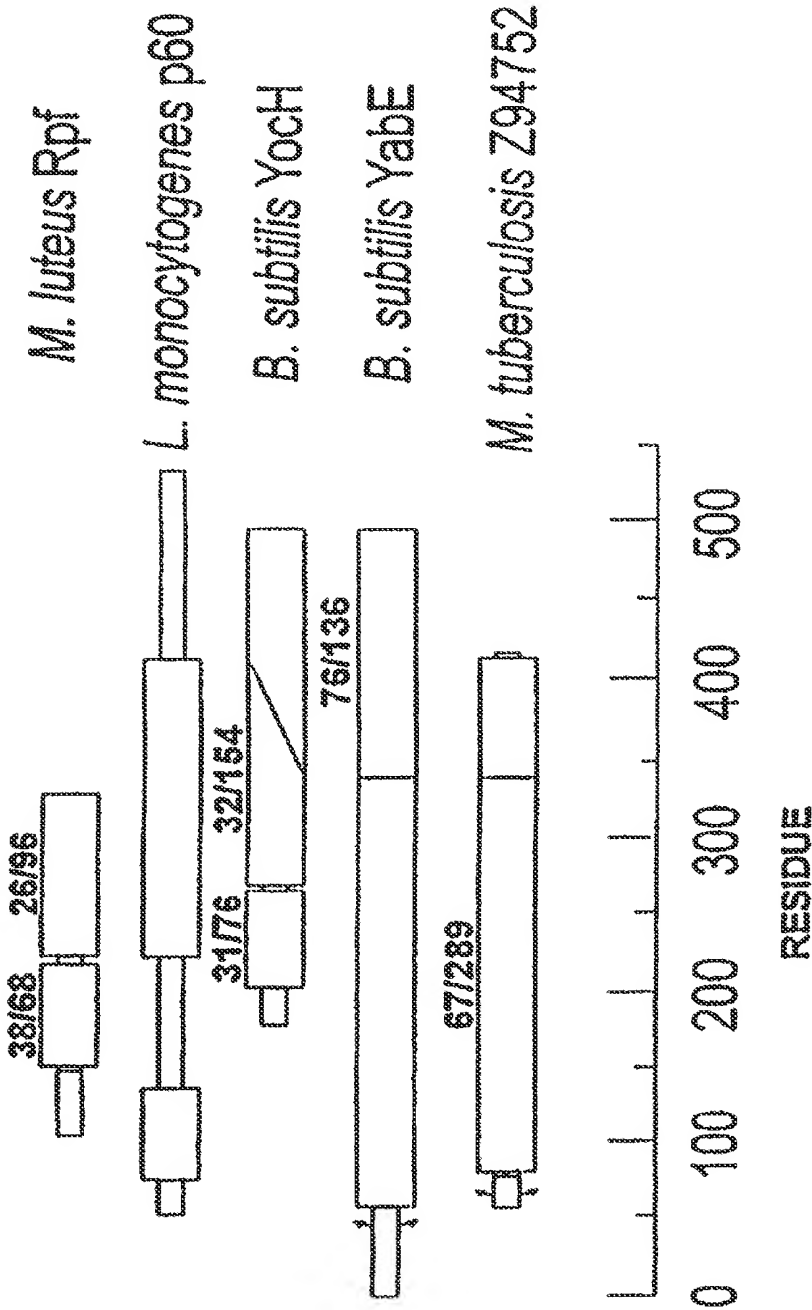


FIG. 9B

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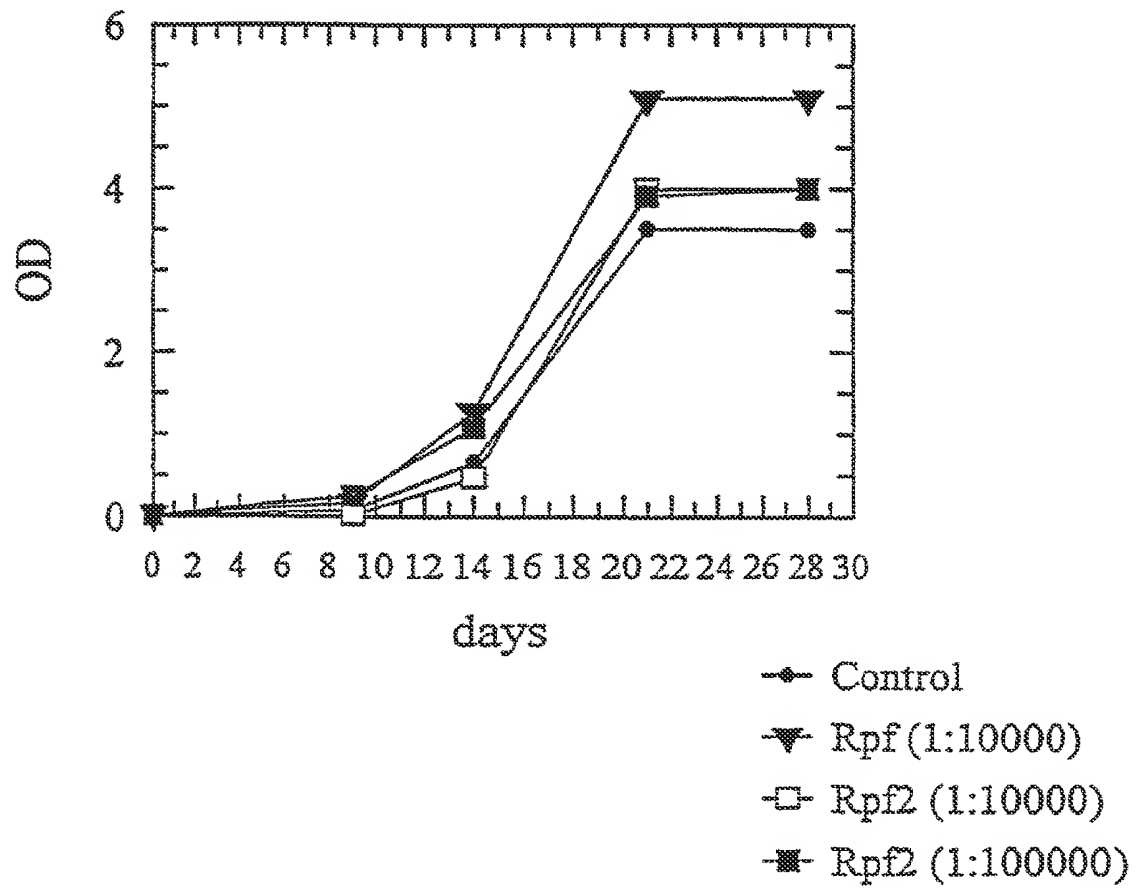


FIG. 10